

State of Illinois  
Department of Transportation  
Division of Highways  
Springfield

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SPECIFICATION  
FOR  
BITUMINOUS PREMIX FOR MAINTENANCE USE,  
INSTANT ROAD REPAIR - PROPRIETARY

Serial Number: M133-96

1. **DESCRIPTION**. This specification covers the properties of a rapid-curing asphaltic concrete mixture for the repair of small areas of flexible and rigid type pavements.
2. **MATERIAL**. The mixture shall be designed so that it will have a good workability and can be placed at temperatures of 20° to 140°F without addition of heat. The mixture shall have good adhesion to wet surfaces and be resistant to water damage. It shall consist primarily of crushed stone, rapid-curing cutback asphalt and additives. The mixture must be uniform and not require any remixing of the contents of a given container prior to use.
3. **PROPERTIES**. When tested according to standard Illinois Department of Transportation test methods and ASTM procedures indicated, the mixture shall comply with the following requirements. The department may waive any portion of the testing procedures when it determines such waiving will not affect the acceptance decision.

ASPHALT CONTENT, EXCLUSIVE OF VOLATILES:

PERCENT BY WEIGHT .....	4.0 Minimum
	6.5 Maximum

AGGREGATE GRADATION:

<u>SIEVE</u>	<u>PERCENT BY WEIGHT</u>
Passing 1/2" .....	100
Passing 3/8" .....	95 to 100
Passing 1/4" .....	75 to 100
Passing 1/4" Retained on No. 10.....	40 to 75
Passing No. 10, Retained on No. 40 .....	8 to 30
Passing No. 40, Retained on No. 80 .....	3 to 15
Passing No. 80, Retained on No. 200 .....	2 to 10
Passing No. 200 .....	0 to 6

HYDROCARBON VOLATILE CONTENT OF MIX:

PERCENT BY WEIGHT ..... 0.4 MINIMUM  
1.0 MAXIMUM

MOISTURE CONTENT OF THE MIX:

PERCENT BY WEIGHT ..... 0.2 MAXIMUM

DISTILLATION RANGE OF VOLATILES RECOVERED FROM MIX:

Distillate, expressed as percent by volume of total volatiles recovered from mix when tested by ASTM D 86.

			<u>MINIMUM</u>	<u>MAXIMUM</u>
Off	at	300°F	-	15
Off	at	350°F	25	90
Off	at	400°F	65	-
Off	at	450°F	75	-

PROPERTIES OF ASPHALT EXTRACTED FROM THE MIX:

Penetration, 77 F, 100 g, 5 sec. .... 60 MINIMUM  
120 MAXIMUM

Ductility at 77 F, 5 cm/min, cms ..... 100 MINIMUM

STABILITY AND DENSITY PROPERTIES:

Stability of As-received Mix (no curing) at  
77 plus or minus 2 F, percent, minimum  
(molded at 77 plus or minus 2 F) ..... 35

Stability of Cured Mix at 140 F, percent  
minimum (cured and molded at 140 F) ..... 40

Density, Percent ..... 90 MINIMUM  
96 MAXIMUM

(Mix cured and molded at 140 F, percent density shall be the ratio of the compacted specific gravity to the theoretical maximum specific gravity.

Resistance to water damage. The as-received mix may be evaluated by ASTM D3625. It must not show evidence of more than 10 percent stripping of the aggregate surfaces.

4. **PACKAGING**: The material shall be packaged in plastic resealable airtight buckets with a maximum weight of 50 pounds of premix per bucket. The plastic buckets must be sufficiently sturdy to withstand the normal handling received in use and shipment.
5. **SAMPLING**: The department reserves the right to test samples for requirements of these specifications.
6. **CONSTRUCTION METHODS**: The area to receive the material shall be clean and free of standing water at the time of placement of the repair material. Repair material shall be placed in lifts not to exceed 3 inches. Each lift shall be compacted by rolling, tamping or as directed by the Engineer.

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